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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,584	10/23/2001	Micheal Kenneth Brown	401052-B-01-US(Brown)	6513

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EXAMINER	
SING, SIMON P	

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/037,584	BROWN ET AL.	
	Examiner	Art Unit	
	Simon Sing	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5-12,14,16-19,21 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3, 5-12, 14, 16-19, 21 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 3, 5, 8, 9, 12, 14, 16, 19, 21 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Merrow et al. US 6,990,179.

1.1 Regarding claims 1, 8 and 12, Merrow discloses a method for determining whether an automated outgoing call is answered by a live person or by an answering machine (call classification) (column 11, lines 15-28), comprising steps of:

receiving audio information from a called destination terminal (column 7, lines 51-59; column 8, lines 32-42); and

concurrently analyzing, using a speech recognition system (computer 16 in figure 1), the received audio information for spoken words after a greeting prompt (determining whether the call is answered by an intended recipient), or a tone during the greeting prompt (or answered by an answering machine) (column 7, lines 51-59; column 7, lines 32-42).

(Note: Applicants claim receiving "tones" in current invention. However, the Specification only discloses receiving a tone, ***not tones***, from a called destination end point, for example, stated on page 23, lines 4-5: "Block 802 performs a fast speech detection analysis to determine whether the information is a speech or ***a tone***". Therefore, examiner interprets "tones" as "a tone" in this Office Action).

1.2 Regarding claims 3 and 14, Merrow teaches receiving phrases from a live person (column 8, lines 32-42).

1.3 Regarding claims 5, 9 and 16, Merrow teaches Hidden Markov Model (column 1, lines 56-65).

1.4 Regarding claim 19, Merrow discloses a system 12 for determining whether an automated outgoing call is answered by a live person or by an answering machine (call classification) (column 11, lines 15-28), comprising:

an automatic speech recognition system 16 for detecting spoken words after a greeting prompt (whether answered by an intended recipient), or tones during the greeting prompt (answered by answering machines) (column 7, lines 51-59; column 7, lines 32-42); and

an inference engine (speech recognition system 16) for classifying the call (whether the call is answered by a live person or by an answering machine) in response

to the automatic speech recognition (column 7, lines 51-59; column 7, lines 32-42; column 11, lines 15-28);

1.5 Regarding claim 21, Merrow teaches receiving phrases from a live person (column 8, lines 32-42).

1.6 Regarding claim 23, Merrow teaches Hidden Markov Model (column 1, lines 56-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 8, 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramanan US 6,208,970 in view of Merrow et al. US 6,990,179.

Ramanan discloses a method and system for determining a connected call is answered by a live person, an answering machine or a data terminal (Abstract; column 6, lines 53-56; column 5, lines 53-60; column 8, claim 2), comprising:

receiving audio information from a called destination terminal (column 5, lines 35-39, 53-60; column 6, lines 4-11; column 7, lines 1-19);

concurrently analyzing, using a speech recognition, the received audio information for spoken words to determine whether the call is answered by a live person or by an answering machine (column 7, lines 1-34);

detecting tones from facsimile machine, modem or pager to determine if the call is answered by a data terminal (column 7, lines 1-19; column 5, lines 53-50).

Ramannan also teaches a server 12 (reference engine) for determining whether the call is answered by a live person or by a machine (column 6, lines 53-56), and further teaches that speech recognition and tone detection are performed by a single processor (column 8, lines 14-18), but fails to explicitly teach that tone detection is performed by speech recognition.

However, Merrow discloses a speech recognition system 16 in figure 1 for recognizing both words and a tone from a called endpoint (column 6, lines 3-6; column 7, lines 17-20; column 8, lines 32-42; column 7, lines 51-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Ramanan's reference with the teaching of Merrow, so that speech recognition would have been used to recognize tones, because utilizing an existing speech recognition system to recognize tones would have eliminated a tone detection circuitry and would have reduced design and manufacturing cost.

3. Claims 6, 7, 10, 11, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merrow et al. US 6,990,179 in view of Raman et al. US 5,842,165.

3.1 Regarding claims 6, 10 and 17, Merrow teaches using Hidden Markov Model (HMM) for voice recognition, but fails to teach using grammar.

However, Raman discloses a method for speech recognition using the Hidden Markov Model (column 2, lines 21-26). Raman also teaches using grammar rules (column 2, lines 27-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Merrow's reference with the teaching of Raman, so that voice recognition would have used grammar rules, because using a grammar in voice recognition was old and well know in the art, and using grammar rules in stead of HMM would have been a matter of design choice.

3.2 Regarding claims 7, 11 and 18, Merrow teaches an inference engine (speech recognition system 16) for classifying the call in response to the automatic speech recognition (column 7, lines 51-59; column 7, lines 32-42; column 11, lines 15-28).

Response to Arguments

4. Applicant's arguments filed on 05/28/2006 have been fully considered but they are not persuasive.

The Applicants arguer that the prior art of Merrow only teaches using an automatic speech recognition system (computer 16 in figure 1) to detect a tone, not using automatic speech recognition analysis to determine the tone (page 11 of the Remark). However, as recited in claim 1: "concurrently analyzing *using speech recognition* the received audio information for words and tones". It is clearly to this examiner that speech recognition technique is used to analyze received audio information in order to determine whether a voice (audio) or a tone is received. Merrow teaches such limitation by determining (using automatic speech recognition system 16) whether voice or tone is received. Merrow teaches analyzing received audio information in column 8, lines 42-44: "When either these response is received, the speech recognition system 16 analyzes the response and determines that the answering person is the target person". It is inherent that in order to recognize tones or speech, a speech recognition system must analyze audio information it received for determining whether received audio information is a voice response or a tone, because automatic speech recognition is performed by a processor with necessary software for speech analysis, not by a discrete tone detector (frequency filters).

Conclusion

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is 571-272-7545. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at 571-272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

Simon Sing

07/28/2006

FAN TSANG
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